UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 19 1999

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

MEMORANDUM

SUBJECT: Review of Bevill Issues Raised in Magcorp's December 23, 1998 letter to Utah Department of Environmental Quality

FROM: Elizabeth Cotsworth, Acting Director
Office of Solid Waste

TO: Carol Rushin, Assistant Regional Administrator
Office of Enforcement, Compliance and Environmental Justice
United States Environmental Protection Agency-Region 8

Linda Jacobson on your staff requested that the Office of Solid Waste (OSW) review Magcorp's December 23, 1998 letter to the Utah Department of Environmental Quality (UDEQ) regarding the Bevill status of their waste streams. Most recently, OSW stated its positions on the Bevill status of waste streams at Magcorp in my December 10, 1998 memorandum to you.

Magcorp's letter contains no new information and essentially restates their position that their waste streams have Bevill status. EPA disagrees with Magcorp that all aggregated wastewater streams entering the onsite impoundment are exempt and has stated so numerous times to Magcorp and UDEQ. The following is a point by point discussion of the issues raised in Magcorp's December 23, 1998 letter.

Magcorp noted that the Agency indicated on page 444 of our April 1998 guidance entitled "Identification and Description of Mineral Processing Sectors and Waste Streams," that the beneficiation/processing boundary line occurs when the dried $MgCl_2$ undergoes electrolytic refining in the electrolytic magnesium cells and chlorine is removed to yield pure magnesium. OSW and Magcorp have never disagreed over where the beneficiation/mineral processing line is; rather, Magcorp contends that all wastewaters generated after that point are exempt mineral processing wastes.

OSW has stated numerous times that only two waste streams–scrubber underflow process wastewater and scrubber liquor process wastewater–from the Magcorp facility specifically qualify as exempt mineral processing wastes. Magcorp contends that all its wastewaters are

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exempt. This is incorrect, as OSW explained in our 1994 memorandum to the Region. When OSW issued the Report to Congress on Wastes from Mineral Processing in 1990, the Agency expressly noted which waste streams it believed were exempt at Magcorp. Magcorp had the opportunity to comment on those conclusions and the Agency relied upon the 1990 Report to Congress as the technical basis for its regulatory determination that only two waste streams at Magcorp should continue to retain Bevill-exempt status. Magcorp is misrepresenting the regulatory history of the Bevill exemption in an attempt to prove that the Agency's use of the term "process wastewaters from magnesium production" found at 40 CFR 261.4 is broader than the Agency intended.

The preambles to the proposed and final rules cited by Magcorp do not attempt to define what constituted "process wastewater" and it is, therefore, not possible to rely on those documents in order to determine what was intended by this term. EPA was, however, clear in its 1990 Report to Congress that (1) the process wastewater at Magcorp that constituted exempt "special wastes" consisted of scrubber underflow and scrubber liquor, and (2) all the wastes in the impoundment at the site were not Bevill exempt wastes. As reflected in the language and structure of section 3001, the Report to Congress serves as the principal technical basis for EPA's regulatory determination as to the scope of the Bevill exemption. This Report also serves as the principal means by which EPA obtains public input into the regulatory determination process. The Report reflects EPA's understanding of the scope of the Bevill exemption where, as in this case, EPA did not substantively revise either the technical descriptions or findings made in the Report when EPA made a final decision that only two process wastewaters from this facility were exempt under Bevill.

Magcorp also inappropriately relies upon the definition of process wastewater in EPA's effluent limitations guidelines and standards program under the Clean Water Act. See 40 C.F.R.401.11(q). That definition relates solely to the applicability of certain regulations to effluent discharges from various industrial categories into waters of the United States and has no relevance to the determination of a waste's Bevill status under RCRA.

Magcorp also indicated that its laboratory wastes are uniquely associated with its mineral processing operations. Magcorp contends that since lab wastes are derived from the acid digestion of process intermediates and are similar to other low pH wastewaters, its lab wastes are uniquely associated. The fact that a waste may be "similar to" a Bevill exempt waste has never been the basis for determining whether a particular waste is "uniquely associated" with exempt mining or mineral processing. The Agency has consistently concluded that laboratory wastes are not uniquely associated wastes and are, therefore, subject to regulation under RCRA Subtitle C if they are hazardous. Laboratory wastes are not generated directly "from" extraction/beneficiation or mineral processing. The Agency restated its understanding of the uniquely associated principle first established in 1980 (see 45 FR 76619) most recently in the preamble to the May 26, 1998 Mineral Processing Land Disposal Restrictions rule (see 63 FR 28556). In that rule, the Agency again noted that laboratory wastes are not uniquely associated mineral processing wastes. Region 8 informed UDEQ in 1992 of our view that laboratory wastes are subject to regulation under Subtitle C, and OSW restated this position in our 1994 memorandum to the Region. Magcorp has been fully aware of these conclusions since 1992. During Mr. Hoffman's July 30, 1998 visit to the site, he again informed Magcorp that we do not believe

that laboratory wastes are uniquely associated. Magcorp staff noted at that meeting that these wastes were still being disposed of in the on site impoundment.

Magcorp further contends that the September 1, 1989 rule (54 FR 36592) contains language which established an Agency position that allowed for the aggregation of separate waste streams for the purpose of determining if a waste stream met the high volume criteria. This is a misrepresentation of what we said on this subject. The Agency stated at 54 FR 36609:

> As it stated in the April 17 NPRM, the Agency largely disagrees with these commenters on the issue of the appropriate level of aggregation of waste streams. EPA believes, and the Court has agreed, that mineral processing wastes must meet the special waste criteria, namely high volume and low hazard, to be entitled to temporary exclusion from subtitle C requirements under the Bevill amendment. In order to complete the RCRA 8002(p) study requirements, EPA must define current and alternative management practices that could be employed to manage special mineral processing wastes. In practical terms, this requires that the Agency examine individual waste streams in order to determine whether current management practices are adequately protective of human health and the environment and whether individual Bevill wastes are amenable to Subtitle C controls. Moreover, because it is neither appropriate nor practical to apply the low hazard criteria to aggregated wastes, the Agency believes that it must address waste volumes as well as hazard on an individual waste stream basis.
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> Additionally, addressing mineral processing wastes on an individual waste stream basis is consistent with waste management regulations under the rest of the RCRA program. Under subtitle C, waste streams are listed individually and assigned waste codes. Each RCRA waste code represents an individual waste stream. Wastes in many industries, such as steel and petroleum production, are separated into several waste codes, each characterizing the individual process that generated them (see 40 CFR 261.31-33). These waste codes are treated individually under many of the subtitle C programs, such as the land disposal restrictions. In addition, requirements to determine whether a waste exhibits a hazardous characteristic contemplate an analysis on an "as generated" basis (see 40 CFR 262.11).

Magcorp argues that the Agency used aggregation in determining the status of copper slags and phosphogypsum wastes. This is also a misinterpretation of the 1989 rule. With regard to the Agency's evaluation of copper slags, the 1989 rule discussed the status of only copper slag and no related wastewaters or other aggregated wastes at 54 FR 36626. The Agency further analyzed separate waste steams at primary copper smelters in Chapter 6 of the 1990 Report to Congress on Wastes from Mineral Processing. Chapter 6 evaluated the volume and toxicity of smelter slag, converter and anode slag, and slag tailings. There was no aggregation of waste streams in the chapter and no discussion of combining wastewater streams with the solid waste streams.

Magcorp again misrepresented the 1989 rule's discussion of phosphogypsum wastes and the issue of aggregation. The preamble notes at 54 FR 36628:

> The Agency also wishes to reiterate its position regarding the definition of phosphogypsum, as articulated in the April NPRM. Phosphogypsum and the process water that is used to remove it to disposal represent two separate waste streams that could, if the industry desired, be managed separately. The Agency understands that when the phosphogypsum waste stream leaves the mineral processing circuit it is not entrained in the process water, but is a semi-solid residue from a filtering operation. The solid waste is then entrained in the process water in order to transport the waste to gypsum stacks for disposal. While alternative transport systems may be impractical, the fact remains that there exist two waste streams capable of being managed separately which must be considered separately for this rulemaking. Therefore, only phosphogypsum will be unconditionally retained within the Bevill exclusion for today's ruling. EPA will address the status of process wastewater from phosphoric acid production, including its components (i.e., the gypsum stack run-off issue) in the September, 1989 proposal.

Thus, it is clear from the 1989 rulemaking that the Agency has consistently taken the position that the Bevill status of mineral processing waste streams must be determined on a waste stream by waste stream basis and that aggregation of wastes or waste streams is not appropriate in determining the Bevill status of wastes.

Magcorp stated that since the Agency took samples from aggregate wastewater flows for evaluation and analysis in the 1990 Report to Congress, the act of such sampling meant that the Agency viewed the aggregate waste stream as one waste stream rather than several separate ones. OSW has already discussed the status of sampling in our 1994 memorandum. We concluded that the fact that the Agency sampled a combined flow at a location does not convey any special status to the entire flow entering Magcorp's impoundment.

Magcorp concluded its letter by stating that under the Bevill mixture rule, they were allowed to mix hazardous wastes with Bevill exempt wastes if the exempt and hazardous wastes have the same characteristic (in Magcorp's case, their wastes are corrosive). Magcorp quoted from page 3 of OSW's 1994 memorandum which stated that, " The promulgated rule applicable to mixture of a characteristic hazardous waste with a Bevill-exempt waste or other solid waste states that such a mixture may be hazardous if the resultant mixture exhibits a hazardous characteristic not exhibited by the Bevill waste alone (see 54 FR 3662: 40 CFR 261.3(a)(2)(i)." Whether a particular waste that results from a mixture of Bevill waste and hazardous waste is itself a hazardous wastes is, however, only part of the issue. Even if the end-resulting waste retains the Bevill exemption, the act of mixing can itself trigger RCRA Subtitle C. Magcorp omitted our discussion of this issue in our 1994 Memorandum, where we stated that under EPA regulations, the act of mixing a hazardous waste with a Bevill-exempt waste, listed hazardous waste, or other solid waste constitutes treatment and that treatment would require a Subtitle C permit. This fact was recognized in the preamble to the September 1, 1989 rulemaking that established the mixture rule, where we stated that mixtures of Bevill exempt wastes with characteristically hazardous wastes would be subject to the appropriate regulation for treatment, storage, and disposal of hazardous wastes, including obtaining a permit (54 FR 36622).

We again stated this position in a discussion of the Bevill mixture rule. See 63 FR 28595 (May 26, 1998).

In addition, under the May 26, 1998 rule, a mixture of a characteristically hazardous solid waste with a Bevill waste that exhibits the same characteristic (e.g., corrosivity) is considered a hazardous waste subject to Subtitle C. We stated at 63 FR 28597 as follows:

> [T]he Agency has decided that if Subtitle C hazardous waste is mixed with Bevill-exempt waste exhibiting the same characteristic and the mixture continues to exhibit that common characteristic, then the entire mixture should be considered to be non-exempt hazardous waste.

I hope this review is helpful in your efforts to determine the regulatory status of wastes generated at Magcorp. If your staff needs to discuss this matter further, please contact Stephen Hoffman at 703-308-8413.